

SB 3097

PROPOSED SD 1

RELATING TO THE UNIVERSITY OF
HAWAII

Appropriates funds to the University of Hawaii at Hilo for research related to rat lungworm disease. (Proposed SD1)



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Higher Education
And
Senate Committee on Commerce, Consumer Protection and Health
February 8, 2018 at 1:20 p.m.
By
Carolyn Ma, PharmD, BCOP
DEAN
UH Hilo - Daniel K. Inouye College of Pharmacy

SB 3097 PROPOSED SD1 – RELATING TO THE UNIVERSITY OF HAWAII

Chairs Kahele and Baker, Vice Chairs Kim and Tokuda, and members of the committees:

My name is Carolyn Ma, and I am the Dean for the UH Hilo Daniel K. Inouye College of Pharmacy (DKICP). University of Hawai'i at Hilo fully supports the intent of this bill that will address the eradication and treatment of Rat Lung Worm (RLW) Disease.

UH Hilo's DKICP has both a basic science researcher and a pharmacy practice (pharmacist) faculty on the RLW Working Group.

A most recent study (in publication) has shown that Hawai'i Island has the highest *Angiostrongylus cantonensis* infection rates in rats (94%) and in mollusks (*Parmarion martensi*, semi-slugs 77%) in the country and the increase in human infection appears linked to the arrival of semi-slugs. A baseline recent study conducted on Kauai, between March-May 2017 and tested for the presence of *Angiostrongylus cantonensis* (Rat Lungworm), of which 17.2% of semi-slugs tested positive. Our basic science researcher has been active in conducting valuable research.

1. Jarvi lab has developed a 'death assay' to distinguish live from dead larvae. Continued study in this area will help complete studies to determine how effective commercially available vegetable washes or other solutions are at killing infective RLW larvae.
2. Simulated catchment water systems have been initially conducted to test two different size filters in an attempt to filter out infective larvae. However, tests have shown that larvae can still travel or move around certain size filters. Continued evaluation of the possibility of RLW transmission in water is necessary by conducting laboratory and household catchment studies to optimize maintenance and treatment design that prevents RLW larvae from entering household and agricultural water supplies.

3. A pilot study has been completed to determine if a blood-based test can help to diagnose RLW, rather than the current diagnosed procedure of a spinal tap. Continued study of protein isolates from infected rats will help to evaluate the reliability and validity of such a test.
4. The lab continues to develop ways of reducing larval burdens in rats. Vaccination study was unsuccessful under given conditions. Further study in possibly deworming rats may be a more appropriate strategy.

UHH DKICP Pharmacy Practice faculty has been working with Dr. John Martell in performing a retrospective chart review to better understand the treatment scheme and outcomes of the 70+ cases of RLW that have occurred in Hawai'i. Legislative funding would help to continue this investigation and further study to determine the most effective medical treatment for the various stages of RLW in humans, domesticated animals and farm livestock.

UH Hilo supports this bill provided that its passage does not replace or adversely impact priorities as indicated in our University of Hawai'i BOR Approved Supplemental Budget.



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February 8, 2018

HEARING BEFORE THE
SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH
SENATE COMMITTEE ON HIGHER EDUCATION

TESTIMONY ON SB 3097, PROPOSED SD1
RELATING TO THE UNIVERSITY OF HAWAII

Room 224
1:20 PM

Aloha Chair Mizuno, Vice Chair Kobayashi, and Members of the Committee:

I am Randy Cabral, President of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

The Hawaii Farm Bureau supports SB 3097, Proposed SD1, with comments, which appropriates funds to the University of Hawaii at Hilo for research related to rat lung worm disease.

Providing safe and wholesome food is a priority for the Farm Bureau and its members. Unfortunately, not enough is currently known about Rat Lungworm Disease, or angiostrongyliasis, to fully protect the public. For example, although we know that people in Hawaii can get the disease by eating food contaminated by the larval stage of *A. cantonensis* worms found in raw or undercooked snails or slugs, and we know that people have also become infected by eating raw produce that contains a small infected snail or slug, or part of one, it is *not* known whether even just the slime left by infected snails and slugs is able to cause infection.

This is critical information since the disease can cause a rare type of meningitis (eosinophilic meningitis) that is extremely painful, debilitating, and can be deadly. Because there is no specific treatment for the disease, patients are only given supportive therapy and pain medication.

As more people are encouraged to grow their own food in backyard gardens, and school gardens are becoming more prevalent, the risk of being infected with this disease increases. Nutritionists advise the public to eat plenty of fresh leafy

However, without knowing enough about the transmission of rat lungworm disease, this advice may be risky in areas infested by snails and slugs, unless proper preventative measures are taken. The public needs to know what pre-consumption measures will prevent transmission. Backyard gardeners and others who may not practice pest management to effectively control snails and slugs, or those who purchase greens from these sources, may be particularly at risk.

HFB supports funding of the University of Hawaii at Hilo for research related to the rat lungworm disease, however, we prefer the language in SB 2471 which proposes a comprehensive and collaborative strategy for the prevention and eradication of rat lungworm disease

Thank you for the opportunity to provide testimony on this measure.

DAVID Y. IGE
GOVERNOR OF
HAWAII



LATE

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

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**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committees on
HIGHER EDUCATION
and
COMMERCE, CONSUMER PROTECTION, AND HEALTH**

**Thursday, February 8, 2018
1:20 PM
State Capitol, Conference Room 224**

**In consideration of
SENATE BILL 3097, PROPOSED SENATE DRAFT 1
RELATING TO THE UNIVERSITY OF HAWAII**

Senate Bill 3097, proposed Senate Draft 1, proposes to appropriate funds to the University of Hawaii at Hilo for research related to the eradication and prevention of rat lungworm disease. **The Department of Land and Natural Resources (Department) supports this bill, provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget request.**

The Department is a collaborator on biosecurity issues with the University of Hawaii and the Hawaii Department of Health, as described in the Hawaii Interagency Biosecurity Plan. Rat lungworm disease is recognized in the Biosecurity Plan as a serious threat to human health and agriculture in Hawaii, vectored by invasive snails and rodents. While the Hawaii Invasive Species Council (HISC), which is administered by the Department, has received funding requests from the University of Hawaii at Hilo to conduct research and education on this important issue, sufficient funding has not been available via HISC to support the broad level of education, research, and control activities needed to mitigate this threat.

The Department suggests utilizing the term "control" in place of "eradication," as rat lungworm disease is widespread throughout the state and is likely not possible to completely eradicate at the island or state level.

Thank you for the opportunity to comment on this measure.

LATE

SB-3097

Submitted on: 2/7/2018 9:36:24 PM

Testimony for HRE on 2/8/2018 1:20:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Hannibal Starbuck		Support	No

Comments: